Wiper Direct Drive WDD2

- CAN and LIN control available
- Optimized for motorsport applications
- Customer specific calibration of wiping angles and speed

The Wiper Direct Drive WDD2 is a wiper motor designed to execute reversing movements instead of rotating 360° like a conventional wiper.
Its function and many operating modes are managed by integrated control electronics. The user is able to control the desired operating mode simply by modifying CAN or LIN messages. The gear, the motor and the electronics are all installed in the same housing.
The main benefit of this wiper motor is its direct rotation movement which replaces external gears and the possibility of programming the operating speed and end positions of all its function modes.

Application

Operating temperature range	-40 to 85°C

Technical Specifications

Mechanical Data

Size	116.3/136.3 x 160 x 111 mm
Max. wipe cycles/min	63 cpm
Max. wipe angle	345°
Max. torque	34 Nm
Weight	1,040 g
Max. vibration	Application specific

Electrical Data

Power supply	12 V / 24 V typical (9 V to 32 V range)
Supply current at 60 cycles/min.	Typ. 12 A/13.5 V

Operating Modes

WDD2 CAN/LIN Operating modes	• Extended Park • Alternate Park • Service Position • Go to URP • Go to LRP • Interval • Continuous • Immediate Stop

LIN Protocol

LIN Version	2.2
LIN Speed	19.2 kb/s
Message IDs	0x31, 0x30, 0x32,

CAN Protocol

CAN Version	2.2
CAN Speed	500 kb/s or 1,000 kb/s
Message IDs	0x6000, 0x6006, 0x6001

Connectors and Wires

Mating connector	MOLEX 31034-5016

Pinout

Pin 1	Unused
Pin 2	Unused
Pin 3	Unused
Pin 4	LIN
Pin 5	Unused
Pin 6	GND
Pin 7	Unused
Pin 8	UBAT

Pin 9	Unused
Pin 10	Unused
Pin 11	CAN_H
Pin 12	CAN_L

Communication

LDF or DBC on request

Installation Notes

For application with severe conditions and/or high volume, please contact your Bosch Motorsport counterpart to define the most appropriate validation program.

The WDD2 can be operated by LIN or CAN. LIN and CAN values are sent at each startup.

The CAN bus speed is automatically detected upon the initial connection and then stored in the device. Any subsequent changes in the CAN speed will be detected by the device during startup. The new CAN speed will be applied after a power cycle of the WDD2.

Make sure that the wiper is in its workspace when restarting after a power failure (upper and lower limit).

Using silentblocks (F02U.003.027-01) may improve durability in high vibration applications.

Please ensure that the environmental conditions do not exceed the specifications.

Delivery Status

The motor will be delivered with three mounting screws. The screws are pre-assembled with a few thread-turns.

- Self-tapping screw referred to DIN 7500
- M6x19
- Maximum tightening torque: 8 to 9 Nm

Legal Restrictions

Due to embargo restrictions, sale of this product in Russia, Belarus, Iran, Syria, and North Korea is prohibited.

Ordering Information

Wiper Direct Drive WDD2
Short Shaft 85 mm
Order number **F02U.V03.657-01**

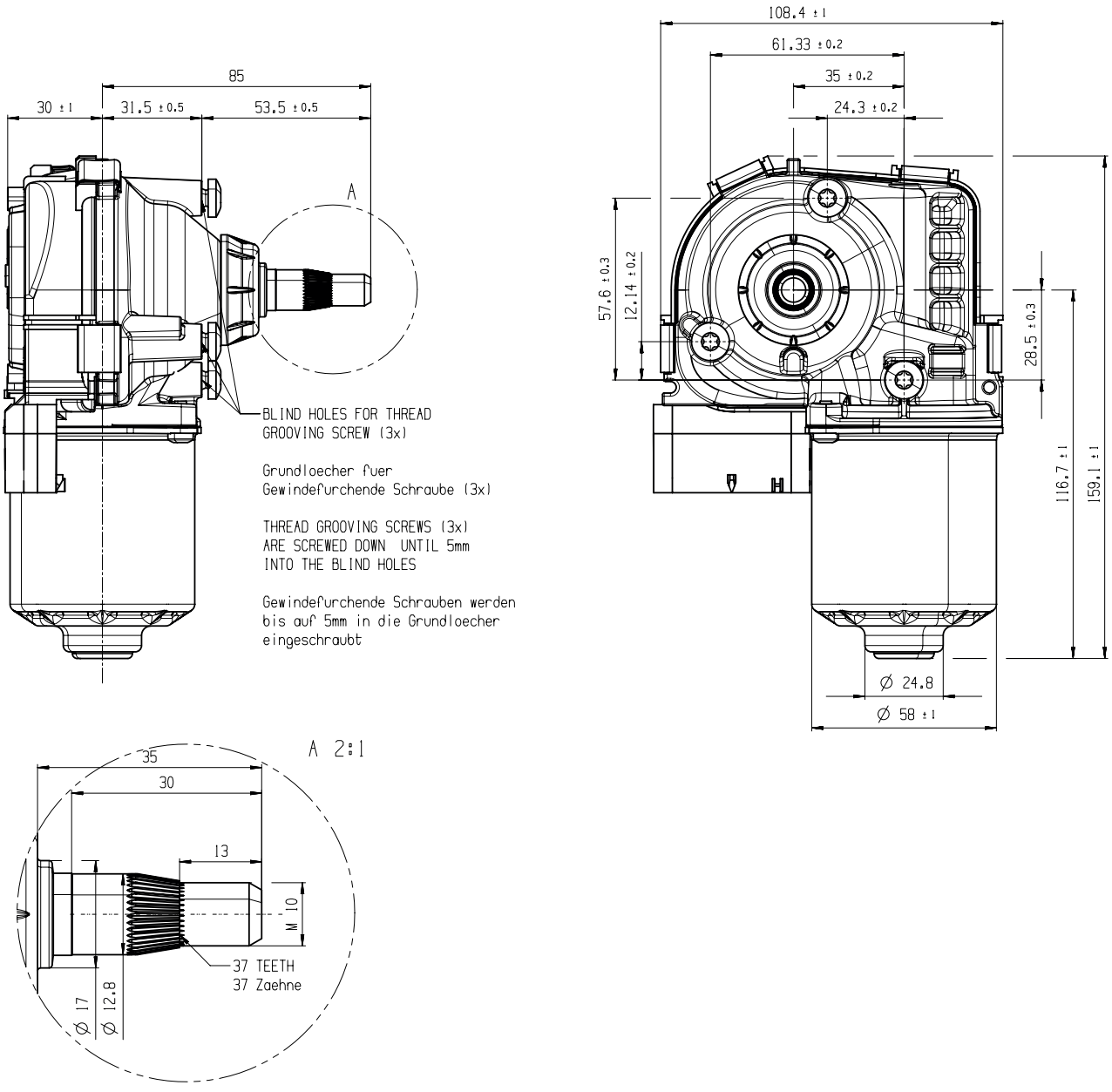
Wiper Direct Drive WDD2
Long Shaft 105 mm
Order number **F02U.V03.658-01**

Accessories

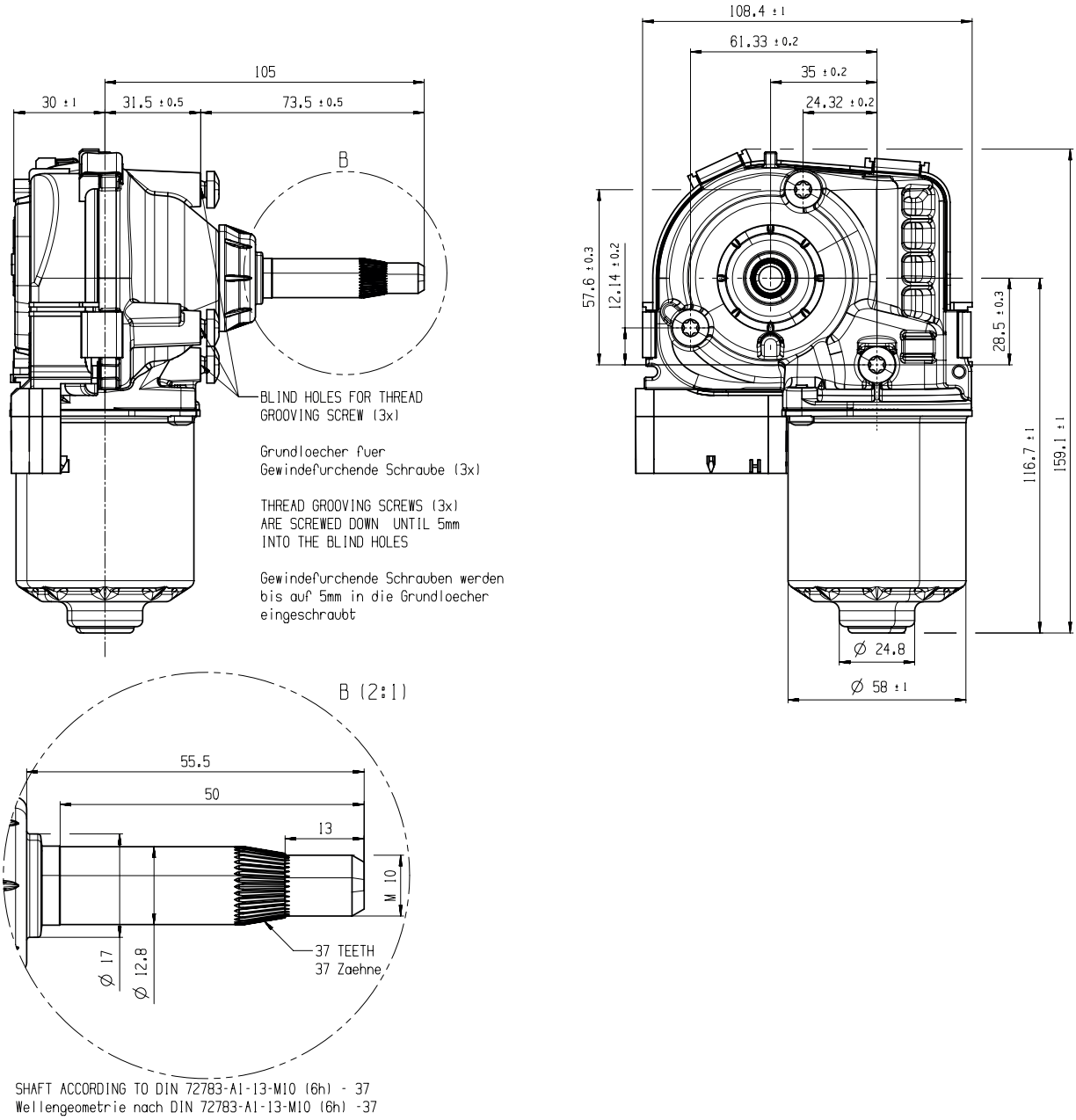
Silentblock
Order number **F02U.003.027-01**

Mating Connector MOLEX 31034-516
Order number **F02U.B01.350-01**

Dimensions



Offer Drawing Version Short Shaft 85 mm



Offer Drawing Version Long Shaft 105 mm

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359287435 | en, , 18. Nov 2025